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- (71) Applicants (for all designated States except US):
ETHICON, INC. [US/US]; Route 22 West, Somerville, NJ 08876 (US). **EXPRESSIVE CONSTRUCTS, INC.** [US/US]; 6 Park Avenue, Worcester, MA 01605 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **SEBASTIAN, Shite** [IN/US]; 37 Harley Drive, Apt. 10, Worcester, MA 01606 (US). **COLPAS, Gerard, J.** [US/US]; 310 Wachusett Street, Holden, MA 01520 (US). **ELLIS-BUSBY, Diane, L.** [US/US]; 875 Brockelman Road, Lancaster, MA 01532-2317 (US). **HAVARD, Jennifer, M.** [US/US]; 9 Eaton Road, Framingham, MA 01701 (US). **SANDERS, Mitchell, C.** [US/US]; 20 Stillwater Heights Drive, West Bolyston, MA 01583 (US).
- (74) Agents: **HOGLE, Doreen, M.** et al.; Hamilton, Brook, Smith & Reynolds, P.C., P.O. Box 9133, 530 Virginia Road, Concord, MA 01742-9133 (US).
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(54) Title: METHODS, PEPTIDES AND BIOSENSORS USEFUL FOR DETECTING A BROAD SPECTRUM OF BACTERIA

(57) Abstract: Described herein are methods of detecting a wound infection and for detecting the presence or absence of bacteria, for example, wound bacteria in a sample, by contacting a sample with a peptide substrate derived from the modification of the reactive site loop (RSL) domain of the α 1-proteinase inhibitor. In the current invention, we have demonstrated that these peptide substrates without the alpha 1 protein can be efficiently used as peptide substrates. The modification or the absence of modification of this peptide substrate by the enzyme produced and/or secreted by the bacteria, can serve as an indicator for the presence or absence of the bacteria in the sample. The present invention also features a biosensor for detecting the presence or absence of bacteria in a sample.



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A. CLASSIFICATION OF SUBJECT MATTER
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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 C12Q

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, BIOSIS, WPI Data, PAJ, EMBASE, CHEM ABS Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	<p>WO 03/063693 A (EXPRESSIVE CONSTRUCTS, INC; SANDERS, MITCHELL, C; LOWE, ADRIAN, M; HAM) 7 August 2003 (2003-08-07) cited in the application abstract claims 1-67 page 2, line 19 - page 4, line 20 page 8, line 27 - page 10, line 3 page 11, line 7 - line 15 page 15, line 5 - line 18 example 13</p> <p style="text-align: center;">----- -/--</p>	1-21

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Vanhalst, K

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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